

**NATIONAL CENTER FOR STATE COURTS**

**STATE OF IOWA  
JUDICIAL WORKLOAD  
ASSESSMENT STUDY**

**FINAL REPORT  
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## **Executive Summary**

State judicial leaders are increasingly turning to more sophisticated techniques to provide data that show how many judges state trial courts need to manage their workload. The Iowa Office of the State Court Administrator (SCAO) commissioned the National Center for State Courts (NCSC) to conduct a judicial workload assessment study since the NCSC is in the forefront of judicial workload assessment research and application. Assessing judicial workload through a workload assessment model is a rational, credible, and practical method for evaluating the need for judges and judicial officers.

Workload assessment is a methodology that assigns weights to defined case categories based on their complexity and need for judicial attention. This is an improvement over counting the number of case filings irrespective of their relative impact on judicial resources. We commend the state of Iowa for its willingness to undertake a project of this scope and bring it to successful completion. This final report presents the steps, methodology, and a summary of the data used in the study. Some of the principal issues and findings are discussed below:

- The NCSC designed this judicial workload assessment study to measure the sub district court workload of the Iowa state court system, including the work of district judges, district associate judges, and magistrates in 99 counties.
- The objectives of the study were to:
  - Conduct a quantitative evaluation of current judicial resources on a statewide basis
  - Provide accurate, easily understood criteria to assess the need for additional judicial resources as conditions change
  - Provide a valid method for allocating new judicial resources among the state's judicial sub districts
  - Provide a mechanism to compare relative need among sub districts
  - Provide a mechanism to measure how changes in case filings for individual case types or case processing procedures affect judicial resource demand
- All fourteen sub districts participated, representing 98 of the 99 counties in Iowa, with a total of 164 judicial officers participating (57 district judges, 37 district associate judges, 70 magistrates).

- NCSC consultants developed a workload assessment model that accounted for all judicial activities, both case-specific workload and non-case-specific workload.
- The model includes case weights (the average amount of time to process a case) for 17 different case categories.
- Non-case-specific workload factors tracked in the study include travel; judicial court administration, community and civic activities in a judicial capacity; and general legal research and writing.
- A comparison of needed judicial resources predicted by the model and the existing supply measured in full-time equivalent positions shows some sub districts appeared to have sufficient resources for the workload at 2000 filing and disposition rates and other sub districts did not appear to have sufficient resources.
- There are unique factors that will influence a sub district's demand for judicial resources; they include the number of hospitalization referees and senior judges, the existence of a specialized drug court, the jury trial rate, the level of interpreter demand, and magistrate "on-call" time. Although the workload assessment model does not incorporate these unique characteristics, information is provided on these characteristics to aid in interpretation of the model.
- The case weights developed in this study should be reliable for several years in the absence of any significant changes in case processing, disposition rates, court structure, or jurisdiction in Iowa's district courts.
- Periodic updating is necessary to maintain the integrity of the case weights and ensure that they continue to represent the judicial workload and court environment. Also, as judicial resources shift, the non-case-specific FTE deductions need to be recalculated.
- The workload assessment study results indicate that the Iowa District Court Judicial Workload Assessment Model is sound and valid for several reasons:
  - There was a high rate of participation by all judicial officers in the time study data collection: 49 percent of all district judges, 55 percent of all district associate judges, 52 percent of all magistrates. The demonstrated cooperation and conscientiousness of the district judges, district associate judges, and magistrates in the time study collection were critical to the success of the study.
  - The disposition and filings data from the Iowa SCAO were of high quality.

- The study collected detailed non-case-specific data on work-related meetings, committee meetings, court administration, and different types of travel. This information helped to define where judges' time went and aided in constructing a more realistic model.
- The large volume of detailed data collected during the two-month time study minimizes the likelihood of sampling error.

This model compares relative need against existing district court resources; as such, some courts will appear adequately staffed and others will not. Workload assessment models need to be viewed in context with other considerations, including budget constraints, population trends, and other more qualitative, court-specific factors that may affect the demand for judicial or staff resources differently from sub district to sub district. For example, the model may estimate that a rural, less densely settled sub district needs less than one judicial or staff full-time equivalent (FTE) position; however, a rural court often has more scheduling gaps than an urban court for a variety of reasons and by statute must be open each judicial day requiring staff regardless of caseload. Because a quantitative model often does not account for such qualitative factors, administrators and policymakers must be aware of the limitations of any model in defining exact resource demand and allocation. The model does not measure the resource needs of the pending caseload or backlogs although assessments such as that could be run using the model and would affect the evaluation outcome. Also, the illustrated model does not address performance goals, such as time to disposition or time to entry of judgment once the judgment is signed, but could be used in this manner too. Given its flexibility, the model is a tool that the courts can use to evaluate needs under a variety of conditions and assumptions.

## I. Introduction

State judicial leaders face continual challenges of effectively managing rising caseloads, disposing of court business without delay, and delivering quality service to the public. Two constant and recurring problems are inherent within these challenges:

- (1) Objectively assessing the number of judges required to handle current and future caseloads.
- (2) Deciding whether judicial resources are being allocated and used appropriately.

In response to the multiple and sometimes conflicting challenges and problems, state judicial leaders are increasingly turning to more sophisticated techniques to provide data that show how many judges the state trial courts need to manage their workload. Assessing judicial workload through a workload assessment (weighted caseload) model is a rational, credible, and practical method for evaluating the need for judges and other judicial officers.

Iowa does not currently use a weighted caseload model to evaluate the demand for new judgeships. Instead, formulas based on filings and population are used to determine the need for district judges and district associate judges (DAJs). Currently, to determine the need for district judges, Iowa uses a method that gives equal weight to the number of district civil and criminal filings and the population of the judicial election district. The need for DAJs is determined strictly by county population. Filings are not considered in the DAJ formula.<sup>1</sup> There are several problems with these methods. First, over the past ten years, the number of filings in Iowa courts has grown at a much faster rate than the state's population. From 1990 to 2000, the state's population grew by 5.4 percent.<sup>2</sup> During the same time period, the total District Court caseload in Iowa grew 16 percent. The rate of increase for the ten-year period is even more drastic if we examine separately the time consuming criminal, civil and juvenile caseloads. The civil caseload, particularly domestic relations, increased by 36 percent, criminal by 65 percent, and juvenile by 39 percent.<sup>3</sup>

A second weakness in the current formulas is that courts in jurisdictions with similar populations may have very different caseloads because of variances in economic conditions,

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<sup>1</sup> See *Iowa Code* §602.6201 and §602.6301, which set forth the current district judgeship and district associate judgeship formulas.

<sup>2</sup> Population data taken from the U.S. Census Bureau ([www.census.gov](http://www.census.gov)) and is based on the 1990 census population and the 2000 population estimate.

<sup>3</sup> See the Iowa Judicial Branch 1999 Annual Statistical Report.



court procedures, or local culture. For example, two courts serving the same number of citizens may have the same number of cases. One court however may have 100 simple misdemeanors while the other court may have 100 violent felony cases. The 100 felony cases take much more judge time than do the 100 simple misdemeanors.

The third weakness in the current DAJ formula is that while it is based solely on county population, nearly all of the DAJs in the state preside in multiple counties within a given sub district. Basing the need for DAJs on county population is also inconsistent with the manner in which DAJs are retained. DAJs stand for retention election within their election district, not just in their county of residence.

Magistrates may be appointed in each sub district to hear certain case types as needed. However, most sub districts have exchanged some magistrate positions for one or more DAJ positions (3 magistrates for 1 DAJ).

In summary, the current district judge model gives too much weight to population and in the case of the DAJs does not consider filings (the actual workload of the court) at all. While population has increased slowly across the state, caseloads have risen sharply. Some Iowa courts have begun instituting therapeutic courts such as drug courts and alternative dispute resolution (ADR) services. It is not known yet how much these outcome-based, specialized approaches affect judicial workload.

These factors all argue for a new, updated workload assessment model based on Iowa judicial caseload and case processing times. The Iowa State Court Administrator's Office (SCAO) commissioned the National Center for State Courts (NCSC) to conduct a judicial workload assessment study. The NCSC is at the forefront of judicial workload assessment research and application.<sup>4</sup> The Iowa Legislature also wanted such a study. The NCSC consultants designed the judicial workload assessment study to measure the sub district court workload of the Iowa state court system, encompassing 317 judicial officers (116 district judges; 67 district associate judges<sup>5</sup>, and 134 magistrates) in eight judicial districts.

This report details the Iowa Judicial Workload Assessment Study methodology and presents a new workload assessment model for the Iowa courts. A workload assessment model

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<sup>4</sup> In the last eight years, NCSC has conducted statewide judicial workload assessment studies for 14 states: Florida, Georgia, Maryland, Michigan, Minnesota, Nebraska, New Mexico, North Dakota, Oregon, South Dakota, Tennessee, West Virginia, Wisconsin, and Wyoming.

<sup>5</sup> Includes district associate, associate juvenile and associate probate judges

is a quantitative representation of the interrelated variables, or characteristics, that work together to predict resource needs. A change in one variable will affect other variables in the model and the predicted judicial resource demand. The term “model” is commonly used in the social sciences to denote this relationship between variables. Specific objectives of the Iowa judicial workload assessment study were to:

- Conduct a quantitative evaluation of current judicial resources on a statewide basis.
- Provide accurate, easily understood criteria to assess the need for additional judicial resources as conditions change.
- Provide a valid method for allocating new judicial resources among the state’s judicial sub districts.
- Provide a mechanism to compare relative need among sub districts.
- Provide a mechanism to measure how changes in case filings for individual case types or case processing procedures affect judicial resource demand.

## **II. Overview of the Judicial Workload Assessment Model**

State court caseloads vary in complexity. Different types of cases require different amounts of time and attention from judges, other judicial officers, and court support staff. Focusing on raw case counts without allowing for differences in the amount of work associated with each case type creates an opportunity for the misperception that equal numbers of cases filed for two different case types result in an equivalent amount of work for the court. For example, a typical criminal felony case has a much greater impact on court resources than does a typical traffic case. Furthermore, certain other case types, such as domestic relations cases involving minor children and juvenile dependency cases, may require continued judicial attention over a long period of time.

Workload assessment is a methodology adopted by an increasing number of states to predict the need for judges. The method assigns weights to defined case categories based on their complexity and need for judicial attention. By weighting cases, the method more accurately assesses the amount of judicial time required to process a court’s caseload, i.e., its case-specific workload. Moreover, workload assessment models provide objective and standardized

assessments of judicial resource demand among judicial sub districts that vary in population and caseload mix.

The core of the workload assessment model is a time study wherein judicial officers keep track of the amount of time they spend on the various case type categories and on non-case-specific responsibilities such as court administration and work-related travel time. The combination of the case-specific time study data and the filing and disposition data for the same time period creates a “case weight” for each case type category. The case weights represent the average total in-court and in-chambers time (in minutes) for each case type category. Applying the case weights to current or projected case filings results in a measure of case-specific workload. Case-specific workload divided by the amount of time available per judge for case-specific work provides an estimate of judicial resources required to process cases. This approach, which involves few complicated procedures, is sufficiently rigorous to provide a model for measuring resource demands and evaluating resource allocations.

Even the most widely used and accepted resource assessment techniques, including the workload assessment model, do not predict the *exact* number of judges needed to stay current with caseloads or to process most cases effectively. No *quantitative* resource assessment model can accomplish that goal by itself. A *quantitative* model can only approximate the need for judicial resources by providing a reasonable average benchmark for comparison among judicial sub districts that is based on current processes. The model needs to be viewed in context with other considerations, including budget constraints, population trends, and other more *qualitative*, court-specific factors that may affect the demand for judicial resources differently from sub district to sub district. For example, the model may estimate from case filings that a rural, less densely settled area needs less than a judicial full-time equivalent (FTE) position. This quantitative estimate needs to be tempered with the knowledge that a rural court often has more scheduling gaps than an urban court for a variety of reasons. Because a quantitative model often does not account for such qualitative factors, administrators and policymakers must be aware of the limitations of any model in defining exact resource demand and allocation.

### III. Iowa Judicial Workload Assessment Model

This section describes the methodology of the workload assessment study and details the construction and components of the Iowa Judicial Workload Assessment Model. The model is located in Appendix A.

The NCSC consultants used a disposition-based workload assessment algorithm to construct the Iowa judicial workload assessment model. The model is straightforward and the basic methodological steps are listed below. The remainder of this report section describes in detail the steps, which were used to build the Iowa Judicial Workload Assessment Model.

#### *Steps in the Workload Assessment Methodology*

- ❑ Decide which judicial officers will participate in the time study.
- ❑ Decide which types of cases should be studied and how each should be categorized.
- ❑ Decide how long the participating judicial officers will record their time.
- ❑ Record all of the time that participating judges spend on all activities related to their jobs as judicial officers.
- ❑ Count filings for a one-year period and count both filings and dispositions for the time study period.
- ❑ Build case weights by dividing the sum of the minutes recorded for any given case type by the number of cases that were disposed during the study.
- ❑ Calculate workload by multiplying the case weights by the filings.
- ❑ Determine how much time the judicial officers have available in a year to do work.
- ❑ Divide the workload by the amount of judge time available to determine judicial resource need.
- ❑ Count the number of current judicial officers.
- ❑ Compare the current number of judicial officers to the predicted need.
- ❑ Review and approve the workload assessment model.

Although the steps in a workload assessment algorithm are straightforward and require only arithmetic calculations, model construction must address hidden pitfalls and assumptions. Confidence in conclusions drawn from any research endeavor depends on the adequacy and accuracy of the data collected to support the research. The filing, disposition, and time study

data must be collected with as much accuracy as possible. The NCSC necessarily makes some assumptions based on reasonable and supportable estimates to define the average annual availability value, which is the average amount of time a state judicial officer has available to process the case-specific workload. For example, the model must account for the average amount of time a judicial officer takes for vacation, illness, and professional development. In most cases, some of these statistics are not readily available. Judges, like other elected officials, do not have a set amount of days that must be taken for vacation<sup>6</sup> and illness, and they work both during and outside the traditional workweek. However, the average time judges have available annually to process cases must be estimated as accurately as possible, usually based on the standard work week's days and hours when the courts are open to the public for case processing and other business.

A steering committee composed of Iowa district court judges, district associate judges, magistrates, and trial court administrators helped tailor the workload assessment methodology to the Iowa courts. The steering committee worked with the Iowa State Court Administrator's Office (SCAO) and the NCSC consultants to categorize the case types and events, estimate the judge year value, and approve the case weights.

#### **A. Selection of Participants**

As a rule, not all judicial officers in a state need participate in the time study. Rather, a representative sample of judicial officers participate, and their times are extrapolated to the rest of the judicial officers in the state. Sampling criteria used in selecting time study participants includes differing court sizes, rural and urban courts, specialized and unspecialized courts, geographic diversity, reputation for efficient case processing, and the judicial officers' interest in participating.

Iowa has eight judicial districts, encompassing 99 counties, and 317 district court judicial positions. The NCSC consultants shared sampling criteria with the SCAO and the steering committee to ensure adequate coverage and representation by judicial officer type as well as jurisdictional geography and size. The SCAO invited all Iowa judicial officers to participate in the time study. More than half the state's judicial officers (52%) did participate, which was more

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<sup>6</sup> Judges do accrue vacation by court rule as follows: 20 days per year for through the 15<sup>th</sup> year of judgeship and 25 days per year beginning in the 16<sup>th</sup> year of judgeship

than the NCSC consultants had requested and needed for statistical validity. Appendix B shows the judicial participation rates by sub district and judicial officer type.

All eight districts participated with representation from all of Iowa's 99 counties, and a total of 164 participating judicial positions. In addition, ten part-time hospitalization referees (contracted positions) also collected data. However, the court's use of part-time hospitalization referees was significantly reduced over the course of the study due to state budgetary constraints. As a result, more commitment cases were handled by other judicial officers in the district.

## B. Case Type Categorization

The more case type categories included in the workload assessment study, the larger the data samples need to be to guarantee statistical validity. Efforts are made to include enough categories to develop realistic and reasonable case weights, while minimizing the burden and costs associated with the judicial time study. Case types are aggregated to group cases of similar type and complexity. For purposes of the workload assessment study, the steering committee grouped case types into the twenty-seven categories shown below.

### CIVIL: LAW & EQUITY

#### 1. Tort – Complex includes:

- person injury-medical/dental malpractice
- person injury -product liability
- professional malpractice

#### 2. Tort—Regular includes:

- motor vehicle
- premises liability
- other negligence/intent
- property/financial damage (no PI)

#### 3. Contract/Commercial –Complex includes:

- fraud/misrep.
- employment claim
- contract/commercial: other

#### 4. Contract/Commercial – Regular includes:

- debt collection

#### 5. Equity includes:

- mortgage foreclosure
- other real property
- other equity

#### 6. Administrative Agency Appeals

#### 7. Other Civil includes:

- non-administrative agency appeals to district court
- distress warrants
- foreign judgments
- liens
- post conviction relief
- other actions

### DOMESTIC RELATIONS

#### 8. Dissolution or Modification includes:

- dissolution with children
- dissolution no children
- modification with children
- modification no children

#### 9. Domestic Abuse

**10. Child Support includes:**

- foster care
- support
- foreign support
- cost recovery
- administrative order
- income withholding
- medical support
- paternity
- UFISA
- Adoption

**11. Other includes:**

- out of state custody
- other domestic relations

**PROBATE & ADULT COMMITMENTS****12. Probate/Estate includes:**

- trusteeship
- guardianship
- conservatorship
- guardian and conservatorship
- estate – full
- estate – wo/adm
- estate – small
- estate – other

**13. Adult Commitments includes:**

- involuntary mental health
- substance abuse
- other mental health

**14. Small Claims/Civil Infractions includes:**

- forcible entry & detainment
- money judgment
- FED & money jud. combined
- other small claims
- civil infractions

**CRIMINAL****15. Felony Violent includes:**

- sexual assault
- domestic abuse
- other violent

**16. Felony: Operating While Intoxicated 3+****17. Felony Other includes:**

- property, burglary, theft
- drugs
- other non-violent felonies

**18. Indictable Misdemeanors Violent includes:**

- domestic abuse
- assault
- other violent

**19. Indictable Misdemeanors OWI includes:**

- Operating While Intoxicated 1<sup>st</sup>
- Operating While Intoxicated 2<sup>nd</sup>

**20. Indictable Misdemeanors Other includes:**

- property
- drugs
- drivers license revocation
- other nonviolent indictable misdemeanors

**21. Simple Misdemeanors includes:**

- driving under sus. license
- domestic abuse
- assault
- state traffic-section 321 (A-I)
- other state
- ordinance

**22. Search Warrants****JUVENILE****23. Juvenile Delinquency includes:**

- sexual assault
- other violent
- property offense
- alcohol
- drugs
- all other delinquency

**24. CINA/FINA includes**

- Child in Need of Assistance (CINA)
- Family in Need of Assistance (FINA)

**25. TPR includes:**

- termination of parental rights (CINA 232)
- termination of parental rights (Priv: 600A)

**26. Juvenile Commitment includes:**

- mental health
- substance abuse
- other

**27. Other Non-Delinquency includes:**

- parental notification

At the time of analysis, filing and disposition data were not available for each of the above listed case type categories, the case categories were reconfigured. Table 1 lists the reconfigured case type categories.

**Table 1: Reconfigured Case Type Categories**

<b>Reconfigured case type category</b>	<b>Original case type category</b>
<b>1 Civil: dissolution</b>	Dissolution or modification (8)
<b>2 Civil: support</b>	Child support (10)
<b>3 Civil: domestic abuse</b>	Domestic abuse (9)
<b>4 Civil: other equity/law</b>	Tort - complex (1) Tort-regular (2) Contract/Commercial-complex (3) Contract/Commercial-debt collection (4) Equity (5) Admin. Agency Appeal (6) Other civil (7) Other domestic relation (11)
<b>5 Small claims/civil infractions</b>	Small claims/civil infractions (14)
<b>6 Simple misdemeanors</b>	Simple misdemeanors (21)
<b>7 Criminal: OWI (1st/2nd)</b>	Indictable Misdemeanor: OWI (19)
<b>8 Criminal: other indictable misdemeanors</b>	Indictable Misdemeanor: violent (18) Indictable Misdemeanor: other (20)
<b>9 Criminal: OWI (3+)</b>	Felony: OWI 3+ (16)
<b>10 Criminal: other felonies</b>	Felony: violent (15) Felony: other (17)
<b>11 Probate/Estate</b>	Probate/estate (12)
<b>12 Adult commitments</b>	Adult Commitments (13)
<b>13 Juvenile: Delinquency</b>	Juvenile Delinquency (23)
<b>14 CINA/FINA*</b>	CINA/FINA (24)
<b>15 TPR*</b>	TPR (25)
<b>16 Juvenile commitment*</b>	Juvenile commitment (26)
<b>17 Search warrants</b>	Search warrant (22)

\* time for the original category of Juvenile: other non-delinquent was distributed proportionately across these juvenile categories



### C. Length of Time Study

The length of the time study is a function of how many districts and judges in each district participate, number of case categories being measured, and volume of filings. Because the study period is but a *snapshot in time*, the workload assessment study does not follow specific cases from filing to disposition. Rather, the workload assessment methodology purposefully takes a snapshot of court activity and compares the *input* of judicial time to the case filings and the *output* of case dispositions. Keeping data collection to a specified period means few cases will actually complete the journey from filing to disposition during the study period. Yet because the study's focus is on *how long* it takes to process cases in the various categories given the number of filings and dispositions reported for that time period, the study need not track any given case from start to finish. Instead, the study must gather time data on all judicial activities during the time study.

Each participating judicial officer reports time spent by case type and by event in the case's life cycle (e.g., pretrial, trial, post-trial). Using a representative study period ensures that the mix of pretrial, trial, and post-judgment activities conducted for each type of case as well as the time devoted to each type of event will be representative of the work entering the court throughout the year. Therefore, the study period provides a direct measure of the average amount of judicial time devoted to processing each case type. The time study is a composite of separate (though likely similar) cases observed at various points in the case life cycle.

Based on experience with workload assessment studies in other states, the NCSC consultants estimated that two months (nine weeks) of data collection would be sufficient to ensure statistical validity. Data collection began Monday, October 16, and ended on Friday, December 8, 2000. Two months of data collection proved sufficient to collect enough data for all case categories to avoid sampling error. Over 1.7 million minutes of judicial time were reported; approximately 76% was case-specific work, and 24% was non-case-specific work. Table 2 presents the total recorded case-specific time.

**Table 2: Total Recorded Case Related Time in Minutes<sup>7</sup>**

<b>Case Type Category</b>	<b>District Associate Judges</b>	<b>District Judges</b>	<b>Magistrates</b>	<b>Total Minutes</b>
Civil: dissolution	9	160,463	10	160,482
Civil: support	103	17,919	135	18,157
Civil: domestic abuse	255	18,920	1,955	21,130
Civil: other equity/law	6,224	208,326	2,142	216,692
Small claim/infract	30,886	1,556	57,416	89,858
Simple misdemeanor	46,728	1,003	117,221	164,952
Criminal: OWI (1st/2nd)	36,272	6,492	6,939	49,703
Criminal: other indictable misdemeanors	110,175	11,418	12,528	134,121
Criminal: OWI (3+)	5,080	5,634	830	11,544
Criminal: other felony	9,487	164,033	10,153	183,673
Probate/estate	15,395	28,107	98	43,600
Adult comm.	4,328	10,970	15,010	30,308
Juvenile: delinquency	43,363	4,465	40	47,868
CINA/FINA	80,495	3,547	276	84,318
TPR	22,533	4,387	79	26,999
Juvenile comm.	2,725	385	225	3,335
Juvenile: other non delinquency	1,497	544	25	2,066
Search warrants	1,281	1,025	2,620	4,926
Missing case type	1,310	2,298	488	4,096
Total Recorded Time	418,146	651,492	228,190	1,297,828

## D. Time Study

The time study is the core of a workload assessment study; participating judicial officers collect the data as they work throughout the day. They record the time spent on various case categories on a data collection form. Judicial officers record all time spent on judicial matters throughout the day or in the evening or weekend, whether at the courthouse, other business places, or at home. Judicial matters include both in-court and in-chambers case processing, court administration, travel, legal research and writing not attributable to a specific case, and other judicial duties such as civic and community responsibilities.

To prepare the judicial officers for the time study, the NCSC consultants held sixteen training sessions for participants.<sup>8</sup> In addition, videotapes of the training were available to all

<sup>7</sup> In addition to the time presented in Table 2, a total of 17,798 minutes of case-specific time was recorded by judicial referees. This time was included in the appropriate case weight calculation.

participating judicial officers who were not able to attend any of the live sessions. The instructions given to the judicial officers are shown in Appendix C.

A data collection form designed by the NCSC with the assistance of the steering committee, requested various information needed for the time study. This information included:

- case type
- event (if it was case-specific work)
- number of minutes
- number of cases processed

The form also asked for identifying information (judge identification number, the county in which the work was performed, and the date). A copy of the data collection form is also located in Appendix C. Participating judges completed the forms by recording all of the work that they did during the data collection period. During the first two weeks of data collection, the NCSC consultants examined the data forms very carefully for ambiguities or errors and made follow-up telephone calls to judicial officers to answer questions, clarify and supplement instructions, and correct problems. The NCSC project staff then entered into a database the information that the judicial officers recorded on the forms.

## **E. Filing and Disposition Count**

(See Appendix A for sub district models)

Typically, a state's annual reporting system supplies filings by case type for the most recent year available. Only filings for case types that are typically handled by a judicial officer are used in the model.

Disposition numbers can be collected several ways: by the judges themselves during the time study, by the court administrators after the study period ends, or by the courts' reports to the state court administrator's office. The preferred method is the dispositions that the courts report to the state court administrator's office when all districts report the same way.

The Iowa SCAO provided data on dispositions and filings reported during the two-month time study, as well as total filings for the year 2000.

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<sup>8</sup> Training sessions were held between September 26, 2000 – October 6, 2000 in Waterloo, Dubuque, Cedar Rapids, Clinton, Davenport, Iowa City, Fairfield, Nevada, Ames, Mason City, Spencer, Sioux City, Council Bluffs, Creston, Clarinda, and Des Moines.

## F. Case Weight Construction

All valid information on the data collection forms is entered into a database, and the database is checked for inconsistencies and errors before case weight construction occurs. The total minutes per case type for all the judges are summed; the resulting minutes are divided by the total number of dispositions for that case type for the data collection time period in the participating districts. The result is the case weight, the average number of minutes required to process each case type across the state. Case weight construction does not account for all the minutes recorded by the judicial officers; the remainder of the minutes, the non-case-specific time, is accounted for elsewhere in the model.

The project team constructing the model needs to decide how many case weights per case type to calculate after a review of the time study data. Guideline 9 in *Assessing the Need for Judges and Court Support Staff*<sup>9</sup> recommends that a single set of case weights for judges within a state is preferable to multiple weights. However, there are often significant disparities between courts that may argue for more than one case weight for a case type. The state's larger courts may have faster average processing times for some case categories because of the inherent economies of scale that larger courts often possess. For example, a larger court can create specialized courts that can work more efficiently than unspecialized courts; a smaller court with less activity has less ability to fill in gaps caused when cases settle just before trial or a defendant fails to appear than does a larger court that has many defendants waiting to appear before the judge if one defendant does not appear. On the other hand, courts large enough to create special or targeted dockets may redirect work and resources from volume dispositions to dockets where judges spend more time per case or per family to coordinate services and improve outcomes to reduce repeat business in the long term, such as in family and drug courts.

The NCSC consultants constructed case weights by totaling the number of minutes recorded for a case type and dividing by the total number of dispositions for the case type received during the reporting period. Table 3 shows the calculation of the case weights for the model.

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<sup>9</sup> V.E. Flango and B.J. Ostrom, *Assessing the Need for Judges and Court Support Staff*, National Center for State Courts, Williamsburg, VA (1996).

**Table 3: Case Weight Construction**

<b>Case Type Category</b>	<b>Total case time* (minutes)</b>	<b>Cases disposed during data collection phase</b>	<b>Case weight</b>
Civil: dissolution	324,740	3,213	101.07
Civil: support	37,208	2,041	18.23
Civil: domestic abuse	39,642	772	51.35
Civil: other equity/law	428,137	5,012	85.42
Small claims/civil infractions	172,357	6,647	25.93
Simple misdemeanors	315,212	43,426	7.26
Criminal: OWI (1st/2nd)	96,511	2,857	33.78
Criminal: other indictable misdemeanors	236,576	6,991	33.84
Criminal: OWI (3+)	23,951	225	106.45
Criminal: other felonies	352,296	3,479	101.26
Probate/estate	79,449	1,940	40.95
Adult commitments	88,007	1,383	63.63
Juvenile: delinquency	88,644	582	152.31
CINA/FINA	161,447	551	293.01
TPR	51,658	118	437.78
Juvenile commitment	8,943	90	99.36
Search warrants	10,564	434	24.34

\* includes time estimates for non-participating judicial officers

## **G. Workload Calculation**

The case-specific workload for each sub district is the sum of the products for the individual statewide case weights multiplied by the number of annual filings for that case type. The case-specific workload is distinguished from the raw number of filings and shows the number of minutes required to process the case mix of the particular district. The model predicts workload for the previous year when the last year's filings are used. For example, in District 1A the model predicts that 704,538 minutes of judicial time are required to process the cases filed in the district in the year 2000. Other estimated filing numbers can be used to predict workload for hypothetical scenarios.

## **H. Determination of Judge-Year Value**

Once we know how much work needs to be done (workload), we need to determine how much time the judicial officers have available to do the work. The judge-year value is an estimate of the average work time a judicial officer has available in a year. More specifically, the judge-year value is the average amount of work time a judicial officer has available to *process cases*, including both in-court activities and in-chambers case-specific administrative

activities that are accounted for in the case weights. Calculating the judge-year value is a two-step process:

- (1) Determine the number of days actually available per year for judicial officers to process cases.
- (2) Determine the number of hours per day that judicial officers can spend on case-specific work.

## **1. Days Available Per Year**

Many model assumptions underlie the judge-year value. Weekends, state holidays, and time related to vacations, illness, attending statewide judicial conferences, and other professional development are subtracted from the calendar year to determine the number of days available to process cases. While determining the number of weekend days and state holidays in a year is easy, determining the average time taken for vacation, illness, judicial conferences, and other professional development is more difficult. Because a state's study period may not be representative for all factors, the project team relies on the steering committee and the Iowa State Court Administrator's Office to estimate the average time taken for vacation, illness, judicial conferences, and professional development.

Development of the judge-year value starts with a baseline of 365 days in the year and subtracts the 104 weekend days and 11 state holidays. It is more difficult to estimate the number of days on average a judge spends on professional development and personal leave. With input from the SCAO and the Steering Committee, the NCSC estimated that on average, 12 days a year are a reasonable amount for professional development (judicial conferences, CLE) and 26 days are a reasonable amount for personal leave (vacation, sick, funeral, military, etc.).

## **2. Hours Available Per Day**

To determine the number of average available hours per year, the model must first estimate a reasonable average of available work hours per day. Again, the NCSC project team consulted the steering committee and Iowa State Court Administrator's Office to develop these estimates. The steering committee concluded that a reasonable average of available working time is seven and one-half hours a day (excluding breaks, meals, or personal time). Assuming 212 days a year on average that are available to a judge for all court work, including case processing and most non-case-specific work such as meetings and administrative activities, the

base judge-year value is 95,400 minutes (212 days  $\times$  7.5 hours  $\times$  60 minutes) for all work. The calculation for the judge-year value is shown in Table 4.

**Table 4: Calculation of Judicial Average Annual Availability Value**

<b>Days Per Year</b>	365
<b>LESS</b>	
<b>Weekend Days</b>	104
<b>State Holidays</b>	11
<b>Professional Development/ Continuing Legal Education</b>	12
<b>Vacation and Personal Leave</b>	26
<b>TOTAL Days Available<sup>10</sup></b>	212

The judicial average annual availability value estimates a *reasonable* amount of time a judicial officer should work in a year. This value is used as an input variable in the model. Initially, the judge-year value may appear to pigeonhole a judge or magistrate's time in an 8 to 5 workday even though many judicial officers in Iowa work outside of an 8 to 5 day and may frequently work on evenings, weekends, and state holidays. By using the judicial average annual availability, the model does not assume that a judicial officer must work all evenings, weekends, and state holidays. Underlying these model assumptions is the anticipation that a judge or magistrate who continually works long hours and weekends to keep up with a heavy caseload is going to suffer burn out in the long run or loss of personal life, and the quality of justice is not served. A reasonable workload is the number of weighted cases that allow sufficient time for a judicial officer to process the average case in a satisfactory and timely manner within a reasonable work week. The workload assessment model, however, will measure only the current times for processing, not the quality of the work.

## **I. Calculation of Judicial Resource Need**

The model predicts the number of judicial resources needed to process cases by dividing the case-specific workload of a sub district (the number of minutes required to process the caseload) by the judge-year value for case-specific workload of a sub district (the average

<sup>10</sup> The Judicial annual availability value used in workload assessment studies varies from 200 days to 224 days. See V.E. Flango and B.J. Ostrom, *Assessing the Need for Judges and Court Support Staff*, National Center for State Courts, Williamsburg, VA (1996) for more information.

number of minutes a judicial officer in that sub district has available to process cases). The result is the number of judicial FTE the sub district requires to process the case-specific work at last year's filing rate.

## J. Judicial Resource Calculations

The model builder must determine the total number of judicial resources available to each sub district to process cases. Judicial resources are the number of authorized judicial positions measured in FTE minus any deductions. Some models include other judicial officers such as magistrates, and referees (different states have different types of judicial officers) who also do judicial work, as well as retired judges and other judges pro tempore who assist on an as-needed, temporary basis in the judicial resource supply total. Other models enumerate the other available judicial officers outside of the model to use for interpretive purposes only. In this particular model, all district and associate judges listed on the personnel report supplied to NCSC were counted as 1 FTE. As discussed with the AOC, each magistrate on this list was counted as .25 FTE. Table 5 displays the FTE count for the various judicial groups by sub district.

**Table 5: FTE counts for judicial groups by sub district**

Sub district	District Associate Judges	District Court Judges	Judicial Magistrates	Total	Total with magistrates at .25 FTE
1A	3	5	8	16	10.00
1B	7	9	9	25	18.25
2A	3	6	15	24	12.75
2B	7	12	17	36	23.25
3A	4	5	8	17	11.00
3B	5	8	7	20	14.75
4	3	7	15	25	13.75
5A	3	7	4	14	11.00
5B	0	4	10	14	6.50
5C	12	17	1	30	29.25
6	7	12	13	32	22.25
7	5	12	13	30	20.25
8A	4	7	11	22	13.75
8B	4	5	3	12	9.75
State	67	116	134	317	216.50



The workload assessment model takes into account work that judges and magistrates perform that is not related to specific cases. This time for meetings, travel, community and civic responsibilities and other non-case-specific work is *not* available to process individual cases and has been deducted from the model as total FTE not available for case-specific activities. During the time study, judicial officers report minutes spent on meetings, travel time, community and civic responsibilities and other non-case-specific work. The model deducts the amount of time a judge must spend on work that is not directly related to case processing. For example, every judge is expected to attend meetings, travel for business, do legal research and reading, and attend to community and civic responsibilities. The NCSC consultants calculated three non-case-specific deductions from the time study data as outlined in the following three sections.

## **1. Travel Time**

Travel time includes any time that the judicial officers spend traveling to and from a court or other facility outside one's county of residence for any court-related business, including meetings. Traveling to a court within one's own county was defined as "commuting time," and was not included in the model.

The NCSC consultants analyzed one year of judicial travel reimbursements from all sub districts in the state. Although a few judicial officers reported not claiming mileage for trips, the general expectation was that the majority did and these reports were a valid data source. The amount reimbursed was converted to mileage and mileage to hours based on a value of 50 miles per hour, and finally converted to minutes per year per sub district. The total minutes spent on travel were converted to FTE lost per year due to travel. The total FTE deduction for each sub district is presented in Table 6.

**Table 6: Travel Deduction for All Judicial Officers**

Sub district	Total miles reported	Hours (50 miles/hr)	Total time spent on travel for sub district (minutes)	FTE deduction
1A	46,922	938.44	56,306.40	0.59
1B	104,243	2,084.86	125,091.60	1.31
2A	75,445	1,508.90	90,534.00	0.95
2B	110,730	2,214.60	132,876.00	1.39
3A	70,807	1,416.14	84,968.40	0.89
3B	61,312	1,226.24	73,574.40	0.77
4	97,664	1,953.28	117,196.80	1.23
5A	75,626	1,512.52	90,751.20	0.95
5B	59,583	1,191.66	71,499.60	0.75
5C	23,594	471.88	28,312.80	0.30
6	77,519	1,550.38	93,022.80	0.98
7	83,437	1,668.74	100,124.40	1.05
8A	87,819	1,756.38	105,382.80	1.10
8B	55,098	1,101.96	66,117.60	0.69

## 2. Non-Case-Specific Administration

The judicial officers recorded time during the study under this category for work directly related to the administration or operation of the court. Work included personnel issues, case assignment, internal staff meetings, budget preparation, judges meetings, meetings with committees or outside agencies regarding court programs, and calendaring. It also includes general legal research and writing time that cannot be attributed to a specific case (such as for law journals, judicial education materials, and benchbooks), and general office tasks.

The tables below show the recorded minutes for non-case-specific administration. The FTE associated with the annual amount of time spent on non-case-specific activities has been calculated. This FTE amount is then deducted from the judicial officer resources because it represents time that judicial officers are unavailable to conduct case-specific activities. The FTE deduction used in the model was calculated for each sub district to more closely reflect practices and procedures occurring in individual sub districts. Also, the non-case-specific administration deduction was calculated separately for each of the three groups of judicial officers (See Tables 7-9) and then combined to generate a non-case-specific administration FTE deduction for the entire sub district (See Table 10).

**Table 7: Non-Case-Specific Administration Minutes for District Associate Judges**

Sub district	Total reported non-case-specific administration time (minutes)	Data collection phase participants	Average time during data collection phase	Average annual time	Total number of district associate judges in sub district	Total time spent on non-case-specific administration	FTE deduction
1A	1,504	2	752.00	4,512.00	3	13,536.00	0.142
1B	2,305	6	384.17	2,305.00	7	16,135.00	0.169
2A	2,088	2	1,044.00	6,264.00	3	18,792.00	0.197
2B	2,705	2	1,352.50	8,115.00	7	56,805.00	0.595
3A	1,739	1	1,739.00	10,434.00	4	41,736.00	0.437
3B	925	2	462.50	2,775.00	5	13,875.00	0.145
4	806	2	403.00	2,418.00	3	7,254.00	0.076
5A	1,751	2	875.50	5,253.00	3	15,759.00	0.165
5B	0	0	0.00	0.00	0	0.00	0.000
5C	12,977	8	1,622.13	9,732.75	12	116,793.00	1.224
6	3,957	3	1,319.00	7,914.00	7	55,398.00	0.581
7	2,429	3	809.67	4,858.00	5	24,290.00	0.255
8A	2,315	3	771.67	4,630.00	4	18,520.00	0.194
8B	1,380	1	1,380.00	8,280.00	4	33,120.00	0.347

**Table 8: Non-Case-Specific Administration Minutes for District Judges**

Sub district	Total reported non-case-specific administration time (minutes)	Data collection phase participants	Average time during data collection phase	Average annual time	Total number of district judges in sub district	Total time spent on non-case-specific administration	FTE deduction
1A	4,884	4	1,221.00	7,326.00	5	36,630.00	0.384
1B	566	3	188.67	1,132.00	9	10,188.00	0.107
2A	1,955	2	977.50	5,865.00	6	35,190.00	0.369
2B	4,524	5	904.80	5,428.80	12	65,145.60	0.683
3A	300	2	150.00	900.00	5	4,500.00	0.047
3B	6,135	4	1,533.75	9,202.50	8	73,620.00	0.772
4	550	2	275.00	1,650.00	7	11,550.00	0.121
5A	840	2	420.00	2,520.00	7	17,640.00	0.185
5B*	1,515	2	757.50	4,545.00	4	18,180.00	0.191
5C	10,326	9	1,147.33	6,884.00	17	117,028.00	1.227
6	11,144	7	1,592.00	9,552.00	12	114,624.00	1.202
7	15,203	11	1,382.09	8,292.55	12	99,510.55	1.043
8A	4,482	4	1,120.50	6,723.00	7	47,061.00	0.493
8B	1,501	2	750.50	4,503.00	5	22,515.00	0.236

\*average of 5A and 5C

**Table 9: Non-Case-Specific Administration Minutes for Magistrates**

Sub district	Total reported non-case-specific administration time (minutes)	Data collection phase participants	Average time during data collection phase	Average annual time	Total number of magistrates in sub district	Total time spent on non-case-specific administration	FTE deduction
1A	277	4	69.25	415.50	8	3,324.00	0.035
1B	1,323	5	264.60	1,587.60	9	14,288.40	0.150
2A	1,718	3	572.67	3,436.00	15	51,540.00	0.540
2B	1,572	9	174.67	1,048.00	17	17,816.00	0.187
3A	1,228	5	245.60	1,473.60	8	11,788.80	0.124
3B	90	3	30.00	180.00	7	1,260.00	0.013
4	1,591	7	227.29	1,363.71	15	20,455.71	0.214
5A	553	2	276.50	1,659.00	4	6,636.00	0.070
5B	229	5	45.80	274.80	10	2,748.00	0.029
5C	865	1	865.00	5,190.00	1	5,190.00	0.054
6	2,089	6	348.17	2,089.00	13	27,157.00	0.285
7	3,593	13	276.38	1,658.31	13	21,558.00	0.226
8A	1,348	7	192.57	1,155.43	11	12,709.71	0.133
8B*	0	1	0.00	0.00	3	3,466.29	0.036

\* average of 8A used

**Table 10: Non-Case-Specific Administration FTE Deduction for all Judicial Officers**

Sub district	Associate Judges	District Judges	Magistrates	Total FTE deduction (rounded)
1A	0.142	0.384	0.035	0.56
1B	0.169	0.107	0.150	0.43
2A	0.197	0.369	0.540	1.11
2B	0.595	0.683	0.187	1.47
3A	0.437	0.047	0.124	0.61
3B	0.145	0.772	0.013	0.93
4	0.076	0.121	0.214	0.41
5A	0.165	0.185	0.070	0.42
5B	0.000	0.191	0.029	0.22
5C	1.224	1.227	0.054	2.51
6	0.581	1.202	0.285	2.07
7	0.255	1.043	0.226	1.52
8A	0.194	0.493	0.133	0.82
8B	0.347	0.236	0.036	0.62

### 3. Other non-case-specific activities

Time recorded under this category includes time spent on community and civic activities in the role of a judge or magistrate as well as time that fell into the “other” non-case-specific activity category. Some examples include speaking at a bar association meeting; attending rotary functions; and speaking at local schools.

The FTE deduction for other non-case-specific administration time was calculated similarly to the non-case-specific administration deduction. Tables 11-14 display the various calculations.

**Table 11: Other Non-Case-Specific Activity Minutes for District Associate Judges**

Sub district	Total reported community and “other” non – case-specific time (minutes)	Data collection phase participants	Average time during data collection phase	Average annual time	Total number of district associate judges in the sub district	Total time spent on other non-case-specific activities	FTE deduction
1A	813	2	406.50	2,439.00	3	7,317.00	0.077
1B	2,300	6	383.33	2,300.00	7	16,100.00	0.169
2A	300	2	150.00	900.00	3	2,700.00	0.028
2B	1,050	2	525.00	3,150.00	7	22,050.00	0.231
3A	440	1	440.00	2,640.00	4	10,560.00	0.111
3B	600	2	300.00	1,800.00	5	9,000.00	0.094
4	590	2	295.00	1,770.00	3	5,310.00	0.056
5A	1,873	2	936.50	5,619.00	3	16,857.00	0.177
5B	0	0	0.00	0.00	0	0.00	0.000
5C	3,182	8	397.75	2,386.50	12	28,638.00	0.300
6	3,453	3	1,151.00	6,906.00	7	48,342.00	0.507
7	3,643	3	1,214.33	7,286.00	5	36,430.00	0.382
8A	985	3	328.33	1,970.00	4	7,880.00	0.083
8B	1,135	1	1,135.00	6,810.00	4	27,240.00	0.286

**Table 12: Other Non-Case-Specific Activity Minutes for District Judges**

Sub district	Total reported community and “other” non – case-specific time (minutes)	Data collection phase participants	Average time during data collection phase	Average annual time	Total number of district judges in the sub district	Total time spent on other non-case-specific activities	FTE deduction
1A	1,983	4	495.75	2,974.50	5	14,872.50	0.156
1B	755	3	251.67	1,510.00	9	13,590.00	0.142
2A	739	2	369.50	2,217.00	6	13,302.00	0.139
2B	1,133	5	226.60	1,359.60	12	16,315.20	0.171
3A	180	2	90.00	540.00	5	2,700.00	0.028
3B	583	4	145.75	874.50	8	6,996.00	0.073
4	515	2	257.50	1,545.00	7	10,815.00	0.113
5A	1,645	2	822.50	4,935.00	7	34,545.00	0.362
5B*	1,645	2	822.50	4,935.00	4	19,740.00	0.207
5C	3,636	9	404.00	2,424.00	17	41,208.00	0.432
6	3,272	7	467.43	2,804.57	12	33,654.86	0.353
7	6,237	11	567.00	3,402.00	12	40,824.00	0.428
8A	1,505	4	376.25	2,257.50	7	15,802.50	0.166
8B	234	2	117.00	702.00	5	3,510.00	0.037

\*Average of 5A and 5C

**Table 13: Other Non-Case-Specific Activity Minutes for Magistrates**

Sub district	Total reported community and “other” non – case-specific time (minutes)	Data collection phase participants	Average time during data collection phase	Average annual time	Total number of magistrates in the sub district	Total time spent on other non-case-specific activities	FTE deduction
1A	265	4	66.25	397.50	8	3,180.00	0.033
1B	620	5	124.00	744.00	9	6,696.00	0.070
2A	145	3	48.33	290.00	15	4,350.00	0.046
2B	898	9	99.78	598.67	17	10,177.33	0.107
3A	95	5	19.00	114.00	8	912.00	0.010
3B	0	3	0.00	0.00	7	0.00	0.000
4	585	7	83.57	501.43	15	7,521.43	0.079
5A	268	2	134.00	804.00	4	3,216.00	0.034
5B	443	5	88.60	531.60	10	5,316.00	0.056
5C	3	1	3.00	18.00	1	18.00	0.000
6	1,058	6	176.33	1,058.00	13	13,754.00	0.144
7	1,801	13	138.54	831.23	13	10,806.00	0.113
8A	996	7	142.29	853.71	11	9,390.86	0.098
8B*	0	1	0.00	0.00	3	2,561.14	0.027

\* average of 8A used

**Table 14: Other Non-Case-Specific Activity FTE Deduction for all Judicial Officers**

Sub district	Associate Judges	District Judges	Magistrates	Total FTE deduction (rounded)
1A	0.077	0.156	0.033	0.27
1B	0.169	0.142	0.070	0.38
2A	0.028	0.139	0.046	0.21
2B	0.231	0.171	0.107	0.51
3A	0.111	0.028	0.010	0.15
3B	0.094	0.073	0.000	0.17
4	0.056	0.113	0.079	0.25
5A	0.177	0.362	0.034	0.57
5B	0.000	0.207	0.056	0.26
5C	0.300	0.432	0.000	0.73
6	0.507	0.353	0.144	1.00
7	0.382	0.428	0.113	0.92
8A	0.083	0.166	0.098	0.35
8B	0.286	0.037	0.027	0.35

**K. Comparison of Predicted Need for Judicial Resources to Actual Judicial Resources**

The next step is to compare the judicial resource predicted demand measured in FTEs and the judicial resource supply measured in FTEs as estimated by the model. By subtracting the judicial resource demand FTE from the judicial resource supply FTE by sub district, the model shows which sub districts appear to have sufficient (i.e. the difference is positive) and which sub districts appear to have insufficient resources (i.e. the difference is negative) for the workload at the previous year's filing rate. For example, in sub district 1A, the model predicts that 7.39 FTE judicial officers are necessary to complete the annual workload. The model also shows that currently, sub district 1A has approximately 8.58 FTE judicial officers available to complete case-specific work. When subtracting the predicted demand (7.39 FTE) from the judicial resource supply (8.58 FTE) the result is a positive number (1.19 FTE) and indicates that sub district 1A has enough judicial resources to manage the case-specific workload.

This difference is an objective indicator based on the statewide case filing weights and average annual availability for processing case-specific work. It does not take into account many local factors that influence the supply or demand.

The difference, by itself, does not show the relative judicial demand among sub districts. A sub district that shows a difference of predicted demand and existing supply of “-1” that has five judges has a greater comparative demand for an additional judge than a sub district that has

15 judges and a difference of “-1.” The percentage of predicted demand to existing supply accounts for the number of current judges and shows the relative demand within and across sub districts.

This comparison is an indicator only and not a strict measurement. Results from applying the model do not evaluate the impact of backlogged cases, special programs to implement best practices, process improvements such as community justice initiatives, or district attorney charging practices, and other factors that drive the workload. It also does not reflect that judges who have extra availability often travel within their sub district.

#### **L. Interpreting the Workload Assessment Model**

Comparing the judicial resource predicted demand to existing supply is only the first step in determining the judicial resources needed across a state. The complete assessment joins the quantitative model with qualitative assessment of local case processing, court programs, and unique characteristics to determine the truer picture of judicial resource demands and appropriate allocation. For example, the availability of other judicial officers such as referees or senior judges influences the interpretation of whether there are judicial resources to meet the demand. Although quasi-judicial officers generally are not interchangeable with judges, they often can assist with some part of the judicial workload of a sub district. Non-permanent judicial officers, however, carry their own additional time demands for coordination and support.

Many other qualitative factors may affect proper interpretation of the model. A rural sub district with a smaller caseload is more likely to experience scheduling gaps than a more urban sub district with a larger caseload. Dispute resolution alternatives to trial and specialized court dockets and systems, such as family and drug courts that exist in some sub districts and not in others, may influence the judicial resource demand; those sub districts with a specialized docket may have larger case weights for those case categories affected by the specialized docket. For example, the statewide average case weight for a felony case may underestimate the amount of time required to process an average case in a specialized drug docket. Some sub districts may handle more aggravated murder cases than other sub districts, and the felony case weight may not be a good estimator of felony times when a sub district has a disproportionate share of aggravated murders or is a small sub district, as these cases can consume a large share of judge time when they occur. Also, some courts may have a greater proportion of cases that require use



of a court interpreter, and the case weights may not account for all the additional processing time.

As noted elsewhere, the difference between the existing judicial supply and predicted demand is but the first step in deciding whether a judicial sub district needs additional judicial resources. To interpret the model, one needs to take into account any additional judicial officers such as hospitalization referees and senior judges and other unique factors that will influence a sub district's demand for judicial resources. Although the workload assessment model does not incorporate these unique characteristics, information is provided on these characteristics to aid in interpretation of the model.

### **1. Hospitalization Referees and Senior Judges**

The model may predict that a sub district needs an additional judge; the sub district may use a part-time hospitalization or juvenile referee to assist with the judicial workload. Although a referee is not the FTE equivalent of a judge, a referee does assist with the judicial workload and needs to be considered when determining the sub district's judicial resource supply and demand. Similarly, availability and appropriate use of senior judges must be considered when applying the model.

### **2. Drug Court**

Three Iowa sub districts have an operational drug court. It is difficult to interpret exactly how drug courts affect the workload assessment model because the time study did not distinguish drug cases from other criminal cases in sub districts without a drug court program.

### **3. Jury Trials**

A sub district with a higher rate of jury trials may take longer to process cases than sub districts with a lower rate of jury trials. Very few cases go to trial and even fewer have a jury trial, but a jury trial is a considerable investment in time for a court. The jury trial rate is not under the court's direct control but is often influenced by litigant demand, local legal practices, and the availability of accepted alternatives to jury trial.

#### **4. Post-Judgment Time**

Many cases are not “finished” with entry of judgment. Felony and misdemeanor cases are re-opened for probation violations. Family case categories, especially juvenile ones, often involve many years of significant post-judgment judicial activity. Judges recorded post-judgment time during the time study, and the minutes were included in the case weight for the respective case categories. However, when a court has more post-judgment activity than the norm, the statewide case weight may under-represent the time required.

#### **5. Court Interpreter Need**

One of the most significant trends for the courts today is dealing with cultural diversity. Access to justice for non-English-speaking American residents and deaf citizens is impeded in a meaningful way by their inability to understand and be understood during court proceedings. Thus, interpreters are often needed to ensure the parties have a clear understanding of the proceedings. This need for interpreters and use of interpreters frequently requires more judge time to hear those matters. The frequency of interpreter services is a qualitative consideration when interpreting the model.

#### **6. Magistrate On-Call Time**

The *on-call* time is another qualitative factor that can affect judicial resource need. The dynamics of the sub districts’ scheduling practices can influence the interpretation of the model. Iowa magistrates share varying schedules of required on-call time in order ensure 24 hour judicial access. As a result this may require more FTEs than the model estimates to ensure reasonable access to judicial services.

#### **IV. Keeping the Workload Assessment Model Current and Future Use of the Model**

The case weights developed in this study should be reliable for several years in the absence of any significant changes in case processing, disposition rates, court structure, or jurisdiction in Iowa's sub district courts. Periodic updating is necessary to maintain the integrity of the case weights and ensure that they continue to represent the judicial workload and court environment. Increased efficiency, statutory or procedural change, implementation of various caseload or case management initiatives, interpreter services, the number of pro se litigants, or technological improvements may result in significant changes in case processing time. The Iowa State Court Administrator's Office should monitor and identify only those case categories for which time study data may have changed significantly from the initial study results. Relatively small-scale samples can be taken periodically across the state to assess whether any adjustments to case weights are warranted. Additionally, as judicial resources shift, the non-case-specific FTE deductions should be recalculated.

A workload assessment model is an effective tool that can be used in judicial resource management and planning. The real power of the model lies in postulating hypothetical scenarios and noting how the changes affect the judicial resource demand. Another way to use the model is to perform a trends analysis by case type on historical filings data and project filing numbers several years into the future for planning purposes. The Iowa State Court Administrator's Office also may be able to calculate the amount of judicial resources needed to handle backlog by substituting the over age pending caseload numbers for the filings numbers.

#### **V. Conclusions**

The workload assessment study results indicate that the Iowa District Court Judicial Workload Assessment Model is sound and valid for several reasons:

- More than half of the judges participated in the time study collection. The demonstrated cooperation and conscientiousness of the district judges, associate district judges, magistrates, and referees in the time study collection were critical to the success of the study.
- The disposition and filings data provided by the SCAO were of a high quality.

- The time study recording sheets were reviewed before data entry and the data entry was methodically reviewed to ensure there were not errors in transcription.
- The study collected detailed non-case-processing data on work-related meetings, committee meetings, court administration, and different types of travel. This information helped to define where judges' time went and aided in constructing a more realistic model.
- The large volume of detailed data collected during the two-month time study minimizes the likelihood of sampling error.
- During the first two weeks of data collection, the NCSC consultants examined the data forms very carefully for ambiguities or errors and made follow-up telephone calls to judicial officers to answer questions, clarify and supplement instructions, and correct problems.

Iowa can be confident in the workload assessment model as the primary methodology to assess needs for additional judgeships.